



An Overview of the Quadratic Interest Rate Volatility and Inflation Hedge ETF (Ticker: IVOL)

About Quadratic Capital Management

Quadratic Capital Management is an innovative asset management firm founded in 2013 by Nancy Davis. The firm has utilized its significant expertise in the interest rate volatility and options markets to construct The Quadratic Interest Rate Volatility and Inflation Hedge ETF (NYSE ticker: IVOL) in a way that helps mitigate the downside risk of the strategy while maintaining upside potential. The firm is based in Greenwich, Connecticut.

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The Quadratic Team and IVOL Partners

The Quadratic Team						
Nancy Davis	Glenn Christal	Henrique Rocha	Brooke Farley			
CIO & Managing Partner 20 Years of Experience	COO & CCO 31 Years of Experience	Market Strategist 10 Years of Experience	Business Development 30 Years of Experience			
 Head of Credit, Derivatives and OTC Trading for Goldman Sachs Prop Desk Highbridge Capital and AllianceBernstein 	 Treasurer of Tudor, 15 years C00 of Millennium Partners 	 Goldman Sachs Rates and FX Strategist Investment experience at firms in both Brazil and the U.S. 	 Former McKinsey Research consultant MIA from Columbia University School of International Affairs 			







The IVOL Ecosystem

	NAV-Based Creates	Market Orders		
Investor	Large Institutions RIA's		Individuals	
Execution	Authorized Participants	Individual Brokerage Account		
Liquidity	Function of the value of the underlying asset that backs the ETF	Function of the value of ETF shares traded		
Shares	Flexible supply - shares can be "created" or "redeemed" to offset changes in demand	Trading the ETF shares that currently exist		

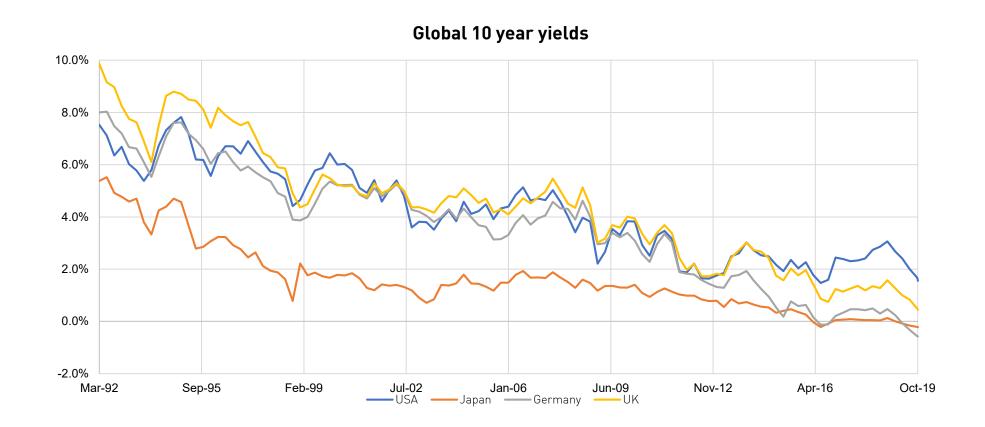
Authorized Participants & Market Makers					
Bank of America 🧇 Merrill Lynch	₽BTIG	CANTOR Bitsgerald			
BAML	BTIG	Cantor			
₩ CITADEL	cîti	CREDIT SUISSE			
Citadel	Citi	Credit Suisse			
Deutsche Bank	Goldman Sachs	(i) Jane Street			
Deutsche Bank	Goldman Sachs	Jane Street			
Jefferies	J.P.Morgan	RBC Royal Bank			
Jefferies	J.P. Morgan	RBC			
SOCIETE GENERALE	S1F	₩ UBS			
Société	Street One Financial	UBS			
VIRTU FINANCIAL	WallachBeth	€C&C TRADING us			
Virtu	Wallach Beth	C&C Trading			





Dilemmas currently faced by investors

• Investors need income yet rates are very low globally



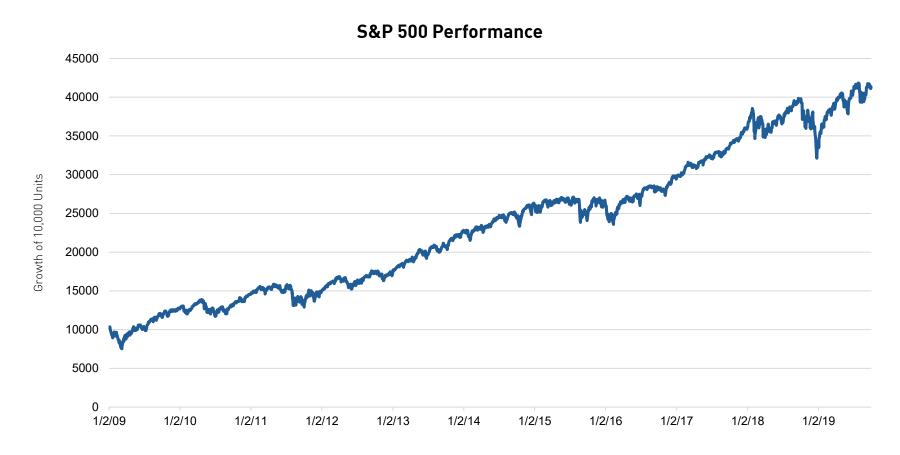
Data from Bloomberg as of 10/07/2019.





Dilemmas currently faced by investors

- Equity valuations are at, or approaching, all-time highs
- S&P 500 annualized return from March 2009 March 2019: 14.31%



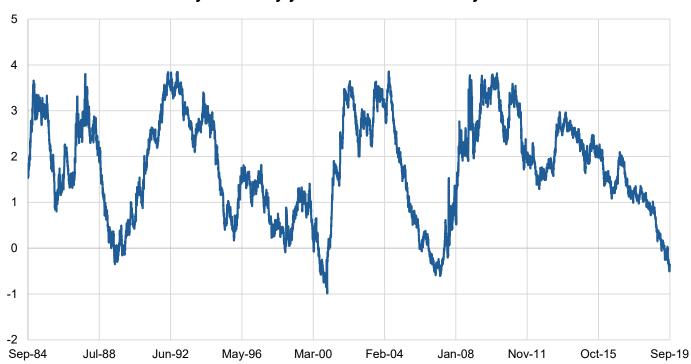




Dilemmas currently faced by investors

- The yield curve is flat to slightly inverted, which is not typical
- At the same time, market downturns, rising volatility, and increased interest rates threaten the value of investment portfolios and real estate holdings.
- The spread between the yield on the 10y Treasury bond and the 3m T-bill is inverted meaning an investor is paid more yield to own the 3-month bill versus the 10 year bond.

10y Treasury yield minus 3m T-bill yields



Chairman Powell said

"inflation expectations are the most important driver of actual inflation". (WSJ, 2019)





The yield curve – recession indicator

Almost every inversion of the curve in the last 50 years has resulted in a recession shortly thereafter







Yield curve environments

Economic Environment	Type of Yield Curve	Yield Chart	Real Life Example	
Short Term Rates < Long Term Rates	Normal: When the 2yr rate is lower than the 10yr rate	Normal Yield Curve 3 2.5 0 2 yr 10 yr	You would have to decide if the increased yield you receive is worth locking up your money for the additional time	
Short Term Rates = Long Term Rates	Flat: When the 2yr rate equals the 10yr rate	Flat Yield Curve 2 1.5 1 0.5 0 2 yr 10 yr	You would tend to buy the shorter dated CD in this example. Why lock up your money when you are not getting rewarded	
Short Term Rates > Long Term Rates	Inverted: When the 2yr rate is higher than the 10yr rate	Inverted Yield Curve 3 2 yr 10 yr	You would tend to buy a shorter dated CD in this example. Why lock up your money when you are getting less yield?	





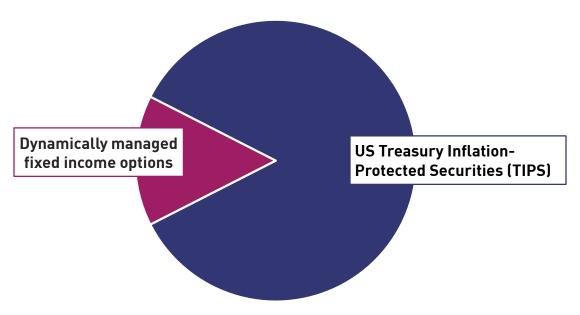
Investment Strategy:

IVOL is a first-of-its kind fixed income ETF which seeks to hedge the risk of increased fixed income volatility and rising inflation and to profit from rising long-term interest rates or falling short-term interest rates, while providing inflation-protected income.

What makes IVOL unique is that it is long interest rate volatility via its access to the OTC fixed income options market. No other active or passive ETF has provided its investors access to this market before. This access is the key to IVOL's many applications and allows it to potentially benefit from normalization of the yield curve while seeking to provide inflation-protection.

IVOL Portfolio Composition

- Dynamically managed fixed income options
- US Treasury Inflation-Protected Securities (TIPS)







Potential scenario analysis

Factors that Impact IVOL	Rising	Falling
TIPS Bond Price	✓	x
Volatility	✓	×
Expectations for Rate Cuts	✓	*
Long Dated Yields	✓	*





IVOL has had very low correlations with common asset classes:

IVOL Correlation To:	DOW	S&P 500	MSCI EM	HY Credit	VIX
Overall	-0.05	-0.04	0.04	-0.02	0.07
On Down Days	-0.35	-0.26	-0.02	-0.33	0.00
On Up Days	0.07	0.01	-0.05	0.18	0.21

Source: Bloomberg from IVOL inception through 9/30/19

More importantly, the correlation data tells us that, since inception IVOL has done well on days that these stock and bond markets fell.

^{1.} See end of deck for index definitions

^{2.} Index returns are for illustrative purposes only and do not represent actual Fund performance. Index returns do not reflect any management fees, transaction costs or expenses. Indexes are unmanaged and one cannot invest directly in an index. Past performance does not guarantee future results. For actual fund performance visit our website www.kfafunds.com.





Attractive "Risk Off" hedge for equities

- The IVOL portfolio has the ability to benefit from equity market shocks. How can a portfolio which invests in interest rate options potentially benefit equity holders?
- As the chart below shows, equity market sell-offs have historically been associated with a steepening of the yield curve. By holding interest rate options that are expected to pay off when the yield curve steepens, IVOL may also help hedge investors against equity market sell-offs.

Relationship Between US Equity Market Sell-Offs and the Yield Curve







IVOL may complement a variety of portfolios

If you invest in...

- Min vol / low vol equities: IVOL can add diversity to a portfolio while potentially acting as a hedge to equities during selloffs caused by an inverted yield curve.
- Short duration / TIPS: IVOL may potentially enhance or replace TIPS or short-duration fixed income in portfolios. IVOL's options access inflation expectations because the yield curve is largely a result of inflation expectations.
- **Floating rate notes:** Many investors own floating rate notes to profit from higher interest rates. Floating rates notes have credit risk and almost no sensitivity to interest rates. IVOL's options portfolio has the potential to appreciate when the interest rate curve steepens and long dated inflation expectations move higher, giving investors a similar benefit to the one they are expecting from their floating rate notes without the credit risk.

...IVOL may enhance your investment strategy.





The IVOL Solution

- Should the yield curve return to its normal shape, IVOL has the potential to make money from this movement. This can happen from an increase in the relative difference in longer versus short term interest rates when:
 - o Short term rates decrease (fed cuts)
 - Long term rates increase higher inflation expectations
- IVOL provides potential for true portfolio diversification while also the potential for delivering inflation-protected income
- IVOL also allows investors potentially to profit from market stress generally as volatility increases.







The Quadratic Interest Rate Volatility and Inflation Hedge ETF

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Key Fund Information

Ticker	IVOL
Index Name	Quadratic Interest Rate Volatility and Inflation Hedge ETF
Primary Exchange	NYSE
Total Annual Fund Operating Expense	1.04%
Total Annual Fund Operating Expenses After Fee Waiver*	0.99%
Inception Date	5/13/2019
Distribution Frequency	Monthly

^{*}Adviser has contractually agreed to waive fees until August 1, 2020.

IVOL Performance History as of 9/30/2019

	Cumulative %		Average Annualized %			
	3 Mo	6 Mo	Since Inception	1 Yr	3 Yr	Since Inception
Fund NAV	-1.32%	-	2.12%	-	-	2.12%
Closing Price	-1.23%	-	2.60%	_	_	2.60%
Index*	1.35%	-	3.69%	-	-	3.69%

The performance data quoted represents past performance. Past performance does not guarantee future results. The investment return and principal value of an investment will fluctuate so that an investor's shares, when sold or redeemed, may be worth more or less than their original cost and current performance may be lower or higher than the performance quoted. For performance data current to the most recent month end, please visit www.kraneshares.com

Index returns are for illustrative purposes only. Index performance returns do not reflect any management fees, transaction costs or expenses. Indexes are unmanaged and one cannot invest directly in an index.





Index Definitions

The Dow Jones Industrial Average ("Dow") is an index that tracks 30 large, publicly-owned companies trading on the New York Stock Exchange and the NASDAQ.

The S&P 500, ("S&P"), is a stock market index that measures the stock performance of 500 large companies listed on stock exchanges in the US.

The MSCI Emerging Markets (MSCI EM) Index captures large and mid cap representation across 26 Emerging Markets (EM) countries.

The iBoxx iShares High Yield Corporate Bond Index (iBoxx HY) is designed to reflect the performance of USD denominated high yield corporate debt.

VIX is a CBOE index that represents equity volatility of 30-day expectations of the S&P 500 equity index.

Important Notes

Carefully consider the Funds' investment objectives, risk factors, charges and expenses before investing. This and additional information can be found in the Funds' full and summary prospectus, which may be obtained by visiting www.kfafunds.com. Read the prospectus carefully before investing.

Investing involves risk, including possible loss of principal. There can be no assurance that a Fund will achieve its stated objectives. ETF shares are not redeemable with the issuing fund other than in large Creation Unit aggregations. Instead, investors must buy or sell ETF Shares in the secondary market with the assistance of a stockbroker. In doing so, the investor may incur brokerage commissions and may pay more than net asset value when buying and receive less than net asset value when selling. The NAV of the Fund's shares is calculated each day the national securities exchanges are open for trading as of the close of regular trading on the New York Stock Exchange ("NYSE"), normally 4:00 p.m. Eastern time (the "NAV Calculation Time"). Shares are bought and sold at market price (closing price) not NAV. Market price returns are based on the midpoint of the bid/ask spread at 4:00 pm Eastern Time (when NAV is normally determined).

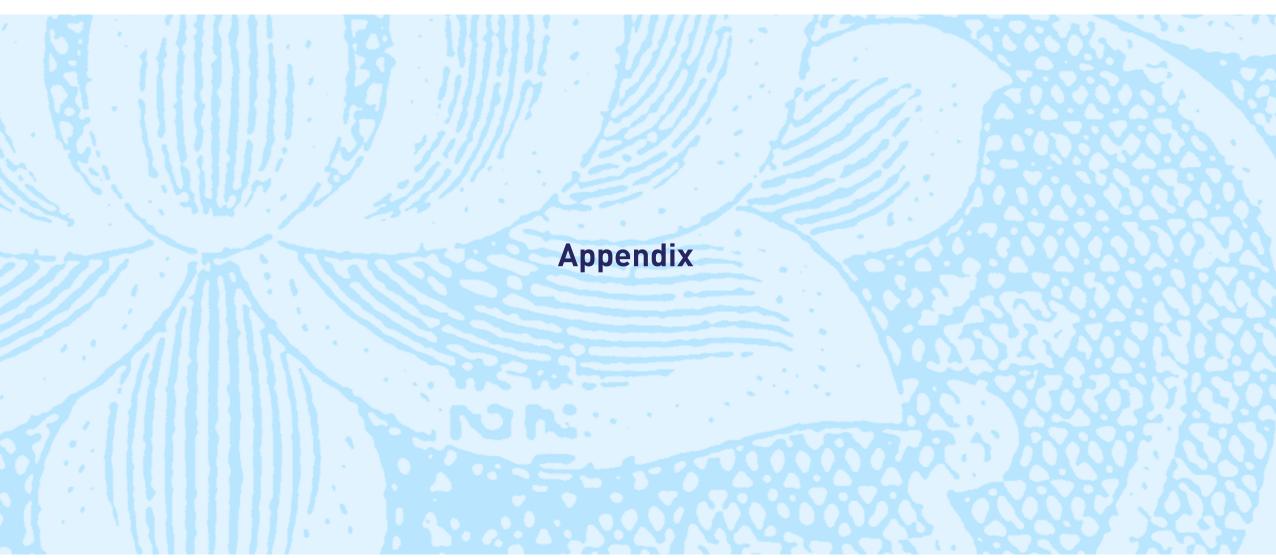
There is no guarantee that issuers of the stocks held by the Fund will declare dividends in the future or that, if declared, such dividends will remain at current levels or increase over time. The Fund is non-diversified. The Funds may invest in derivatives, which are often more volatile than other investments and may magnify the Funds' gains or losses.

There are risks involved with investing in options including total loss of principal. Options investing is not suitable for all investors. This fund utilizes sophisticated options strategies which may not be suitable for all investors. For a more comprehensive discussion of the risks involved in options investing, please review Characterizations and Risks of Standardized Options available at http://www.theocc.com/about/publications/character-risks.jsp or contact the Options Clearing Corporation directly at 1 N. Wacker Dr., Suite 500, Chicago, IL 60606. (1-888-678-4667)

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AUM doesn't matter

1. Look at the overall ownership, not the fund ownership

• Exchange-traded funds (ETFs) are a wrapper, and although an investor may hold a large percentage of an ETF, one must look at the percentage owned of the underlying asset class.

2. Not impacted by other investors

• The ETF structure is unique in that all investors transact independently on an exchange. Being a large or small owner in a fund does not mean you're more or less impacted by the actions of other investors. In a mutual fund, all investors are impacted by the trading activity of other holders in the fund.

3. No principal risk in closure

• If a fund were to close, neither large nor small investors would have a principal risk. The fund would be liquidated by the portfolio manager, and the investors would receive back NAV of the fund, minus costs, at the time of liquidation.

4. Trading in & out

• Investors can trade in and out of a fund regardless of the fund's AUM. ETF liquidity providers (market makers) can easily transfer the liquidity of the underlying basket in to ETF shares. Market makers also accept NAV based orders for larger tickets.





ETF Liquidity

1. An ETF isn't a stock

• If an ETF doesn't trade a certain number of shares per day, is the fund illiquid? No. It's a plausible assumption from a single-stock perspective, but with ETFs, we need to go a level deeper. The key is to understand the difference between the primary and secondary market liquidity of an ETF.

2. Primary Market Vs. Secondary Market

- Most noninstitutional investors transact in the secondary market—which means investors are trading the ETF shares that currently exist. Secondary liquidity is the "on screen" liquidity you see from your brokerage (e.g., volume and spreads), and it's determined primarily by the volume of ETF shares traded.
- However, one of the key features of ETFs is that the supply of shares is flexible—shares can be "created" or "redeemed" to offset changes in demand. Primary liquidity is concerned with how efficient it is to create or redeem shares. Liquidity in one market is not indicative of liquidity in the other market.
- The determinants of primary market liquidity are different than the determinants of secondary market liquidity. In the secondary market, liquidity is generally a function of the value of ETF shares traded; in the primary market, liquidity is more a function of the value of the underlying shares that back the ETF.
- When placing a large trade—on the scale of tens of thousands of shares—investors are sometimes able to circumvent an illiquid secondary market by using an "authorized participant" (AP) to reach through to the primary market to "create" new ETF shares at NAV price.